

REMARKS

In the Office Action mailed August 23, 2006, claims 1-22 and 25 are pending. Claims 23 and 24 have been withdrawn from consideration. Claims 1, 15, 17-20, and 25 have been amended. Claims 2, 3, 4, 16, and 21 are cancelled without prejudice or disclaimer. Applicants reserve the right to pursue the subject matter of these claims in this or another matter. New claims 26-30 have been added and contain no new matter. Applicants have thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action.

Claims 1, 15, 20, and 25 are amended to clarify the invention. Support for the amendment can be found, for example, in paragraphs [0030] and [0033] of the Specification. Claims 17-19 are amended to revise the claim format. Accordingly, claims 1, 4-15, and 17-30 are pending and are believed to be patentable over the cited references.

CLAIM REJECTIONS – 35 U.S.C. §102

Kruse

The Examiner rejected claims 1-22 and 25 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,617,222 to Kruse et al. (hereinafter refer to as "Kruse") as cited by Applicants. Applicants respectfully traverse this rejection.

Applicants note that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. (quoting *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987)).

Without conceding the propriety of the rejection, claim 1 has been amended to recite a filter having an inlet-side cover having a wave-like region along the periphery of said inlet-side

cover, wherein said inlet-side cover further comprises at least one inlet-side filter media support, separate from said wave-like region along the periphery, disposed within the periphery of said inlet-side cover; and an outlet-side cover having a wave-like region along the periphery of said outlet-side cover, wherein said outlet-side cover wave-like region is in a generally complementary alignment with said inlet-side cover wave-like region, wherein said outlet-side cover further comprises at least one outlet-side filter media support, separate from said wave-like region along the periphery, disposed within the periphery of said outlet-side cover, wherein the inlet-side filter media support aligns with the outlet-side filter media support. Claim 15 has been amended to recite a filter having an inlet-side cover having alternating convex and concave regions along the periphery of said inlet-side cover, wherein said inlet-side cover further comprises at least one inlet-side filter media support, separate from said wave-like region along the periphery, disposed within the periphery of said inlet-side cover; an outlet-side cover having alternating convex and concave regions along the periphery of said outlet-side cover which are in complementary alignment with said convex and concave regions of said inlet-side cover, wherein said outlet-side cover further comprises at least one outlet-side filter media support, separate from said wave-like region along the periphery, disposed within the periphery of said outlet-side cover, wherein the inlet-side filter media support aligns with the outlet-side filter media support. Claim 20 has been amended to recite a filter having one or more inlet-side media supports and one or more outlet-side filter media support, wherein the inlet-side filter media support aligns with the outlet-side filter media support. Claim 25 has been amended to recite a filter having an inlet-side cover means having a wave-like region along the periphery of said inlet-side cover means, wherein said inlet-side cover means further comprises at least one inlet-side filter media support means, separate from said wave-like region along the periphery,

disposed within the periphery of said inlet-side cover means; an outlet-side cover means having a wave-like region along the periphery of said outlet-side cover means, wherein said outlet-side cover means further comprises at least one outlet-side filter media support means, separate from said wave-like region along the periphery, disposed within the periphery of said outlet-side cover means, wherein the inlet-side filter media support means aligns with the out-let side filter media support means.

Kruse fails to disclose at least these features of claims 1, 15, 20, and 25. To the contrary, Kruse discloses a crimp seal pleated filter assembly having a base, a frame and a filter media, including a plurality of pleats and not a filter having a filter media support disposed within the periphery of each of the inlet-side cover and outlet-side cover. When assembled, the pleats of the filter media are uniformly aligned within the assembly and are secured therein by crimp sealing the filter ends between interlocking projections on the sides of the base and side walls of the frames. It is respectfully submitted that the frame (40) does not have a media support member. Thus, even assuming the cross wall (34) with a plurality of recesses (36) corresponds to the filter media support, Kruse fails to teach the frame (40) having complementary filter support for the plurality of recesses.

The Applicants respectfully disagree with the Examiner's characterization that Kruse discloses "a base with peripheral wave-like projections 30." Kruse explicitly states "these projections 30 having downwardly diverging 'V' shapes." Moreover, Kruse fails to disclose the combination of the inlet-side filter media support and outlet-side filter media support that are complementary with each other and the wave-like regions along the periphery of the inlet-side cover and the outlet-side cover as disclosed by the claims.

Furthermore, nowhere has the Examiner indicated or identified where Kruse disclosed the elements in dependent claims 2-10 and 16-20. For example:

- Media retention means disposed along the periphery of the inlet-side cover
- Media retention means disposed along the periphery of the outlet-side cover
- Crimp rib disposed along the wave-like region of the inlet-side cover
- Crimp recess disposed along the wave-like region of the outlet-side cover
- Crimp rib disposed along the periphery of the inlet-side cover
- Crimp recess disposed along the periphery of the outlet-side cover

Accordingly, in light of the aforementioned comments, Applicants respectfully submit that each and every element as set forth in claims 1, 15, 20, and 25 is not found, either expressly or inherently described in Kruse and therefore claims 1, 15, 20, and 25 are not anticipated and withdrawal of this rejection is respectfully requested.

Claims 4-14 depend from independent claim 1, claims 17-19 depend from independent claim 15, claims 21-22 depend from independent claim 20 and are believed allowable for at least the same reasons discussed above. Accordingly, in light of the amendments and remarks, withdrawal of the 102(b) rejection to claims 1-22 and 25 is respectfully requested.

New claims 26-28 depend from independent claim 1, claim 29 depends from independent claim 15, and claim 30 depends from independent claim 25, and are patentable for at least the same reasons as their independent claims.

JP08-028376

The Examiner rejected claims 1-7, 10, 15-22 and 25 under 35 U.S.C. §102(b) as being anticipated by JP 08-028376 (hereinafter JP376), as cited by Applicant. Applicants respectfully traverse this rejection.

JP 376 discloses an air cleaner having a filtering element which is arranged in an intake air passage of an internal combustion engine and whose filtering material is bent in a corrugated plate shape and is provided in divisible housings. JP 376 also discloses a pair of comb teeth parts which are respectively inserted in crest parts and valley parts of the filtering element and sandwich both side end parts of the filtering element.

It is respectfully noted that JP 376 does not teach each and every element as set forth in claims 1, 15, 20, and 25. In particular, JP 376 does not disclose the housing element (10) or the case element (11) having inlet-side media support and outlet-side media support that are complementary with each other.

Applicants respectfully disagree with the Examiner's characterization that JP 376 anticipate the current invention because "a first cover 11 and a second cover 12 which cooperating wave-like regions that capture a pleated filter media 2." JP 376 discloses "a pair of comb teeth," which is fundamentally and structurally different from "wave-like region along the periphery" as recited in claims 1, 15, 20, and 25. Moreover, JP 376 fails to disclose the combination of the inlet-side filter media support and outlet-side filter media support that are complementary with each other and the wave-like regions along the periphery of the inlet-side cover and the outlet-side cover as disclosed by the claims.

Accordingly, in light of the aforementioned comments, Applicants respectfully submit that each and every element as set forth in claims 1, 15, 20, and 25 is not found, either expressly

or inherently described in JP 376 and therefore claims 1, 15, 20, and 25 are not anticipated and withdrawal of this rejection is respectfully requested.

Claims 4-7 and 10 depend from independent claim 1, claims 17-19 depend from independent claim 15, claims 21-22 depend from independent claim 20 and are believed allowable for at least the same reasons discussed above. Accordingly, in light of the amendments and remarks, withdrawal of the 102(b) rejection to claims 1-7, 10, 15-22, and 25 is respectfully requested.

New claims 26-28 depend from independent claim 1, claim 29 depends from independent claim 15, and claim 30 depends from independent claim 25, and are patentable for at least the same reasons as their independent claims.

Grauss

The Examiner rejected claims 1-7, 10, 15-22 and 25 under 35 U.S.C. §102(b) as being anticipated by Grauss (USP 5,885,455), as cited by Applicant. Applicants respectfully traverse this rejection.

Grauss discloses a fluid filtration unit having pleated filter media with at least one ply, and two housing parts with inlet and outlet fluid passageways and inwardly projecting ribs that accommodate the pleated filter media. (See abstract.) The housing parts also are provided with peripheral clamping surfaces comprising stepped up or raised portions along the edges, between which the overlapping sides and ends of the pleated filter element are clamped. (Col. 2, lines 37-41). However, Grauss does not disclose a wave-like peripheral region and complementary filter media supports on the inlet-side and outlet-side covers.

As discussed above, it is respectfully noted that Grauss does not teach each and every element as set forth in claims 1, 15, 20, and 15. In particular, the peripheral clamping surface of Grauss are not wave-like, instead, the peripheral clamping surface comprises stepped up or raised portion along the edges. Therefore, unlike the current invention, Grauss does not disclose the housing parts 2 and 3 having wave-like peripheral region for the inlet-side and out-let side covers. Assuming, arguendo, that the peripheral clamping surface are wave-like, Grauss does not discloses complementary filter media supports that are separated from the peripheral of the inlet-side and outlet-side covers.

Therefore, Grauss fails to disclose the combination of the inlet-side filter media support and outlet-side filter media support that are complementary with each other, which are separated from the wave-like peripheral region, and the wave-like regions along the periphery of the inlet-side cover and the outlet-side cover as disclosed by the claims.

Accordingly, in light of the aforementioned comments, Applicants respectfully submit that each and every element as set forth in claims 1, 15, 20, and 25 is not found, either expressly or inherently described in Grauss and withdrawal of this rejection is respectfully requested.

Claims 4-7 and 10 depend from independent claim 1, claims 17-19 depend from independent claim 15, claims 21-22 depend from independent claim 20 and are believed allowable for at least the same reasons discussed above. Accordingly, in light of the amendments and remarks, withdrawal of the 102(b) rejection to claims 1-7, 10, 15-22, and 25 is respectfully requested.

New claims 26-28 depend from independent claim 1, claim 29 depends from independent claim 15, and claim 30 depends from independent claim 25, and are patentable for at least the same reasons as their independent claims.

JP 02-081609U

The Examiner rejected claims 1-10, 15-22 and 25 under 35 U.S.C. §102(b) as being anticipated by JP 02-081609U (hereinafter refer to as “JP 609U”). Applicants respectfully traverse this rejection.

JP 609U discloses a filter unit 20 having an inlet and outlet covers 26 and 28 respectively with cooperating wave-like regions on both housing covers which capture a pleated filter media 30 there between. JP 609U does not disclose complementary filter media supports on the inlet cover and the outlet cover.

Therefore, it is respectfully noted that JP 609U does not teach each and every element as set forth in claims 1, 15, 20, and 25. In particular, JP 609U does not disclose the inlet and outlet covers 26 and 28 having complementary filter media supports on the inlet and outlet covers. In addition, the periphery of the inlet-side cover and the outlet-side cover are not “wave-like,” but “v-shape like.” Moreover, JP 609U fails to disclose the combination of the inlet-side filter media support and outlet-side filter media support that are complementary with each other and the wave-like regions along the periphery of the inlet-side cover and the outlet-side cover as disclosed by the claims.

Accordingly, in light of the aforementioned comments, Applicants respectfully submit that each and every element as set forth in claims 1, 15, 20, and 25 is not found, either expressly or inherently described in JP 609U and therefore claims 1, 15, 20, and 25 are not anticipated and withdrawal of this rejection is respectfully requested.

Claims 4- 10 depend from independent claim 1, claims 17-19 depend from independent claim 15, claims 21-22 depend from independent claim 20 and are believed allowable for at least

the same reason. Accordingly, in light of the amendments and remarks, withdrawal of the 102(b) rejection to claims 1-7, 10, 15-22, and 25 is respectfully requested.

New claims 26-28 depend from independent claim 1, claim 29 depends from independent claim 15, and claim 30 depends from independent claim 25, and are patentable for at least the same reasons as their independent claims.

CLAIM REJECTIONS – 35 U.S.C. §103

The Examiner rejected claims 11-14 under 35 U.S.C. §103(a) as being unpatentable over JP 02-081609U as applied to claim 1 above, and further in view of Gizowski (USP 5,853,577). Applicants respectfully traverse the rejection.

In order for a §103 rejection to be proper, each element of the claim invention must be taught or suggested in the combination of the references. As discussed above in connection with the §102(b) rejection of claim 1, from which claims 11-14 depend, JP609U is deficient because it does not disclose the inlet and outlet covers 26 and 28 having media support. Assuming, *arguendo*, that the combination of JP 609U and Gizowski is proper, such a combination would not overcome JP 609U's deficiency. For at least this reason, Applicants respectfully submit that claims 11-14 are patentable over the combination of JP 609U and Gizowski and request that this §103 rejection be withdrawn.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request that all the objections and rejections to the claims be removed and that the claims pass to allowance. If, for any reason, the Examiner disagrees, please call the undersigned attorney at 202-861-1683 in an effort to